IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

In re Application of

ANN DE BOLSTER ET AL.

Serial No.: 09/989,244

Filed: November 20, 2001

Atty. Docket

PHBE 000021

Group Art Unit: 2635

Examiner: V.U. Brown

Title: ARRANGEMENT INCLUDING A REMOTE CONTROL DEVICE AND A FIRST
ELECTRONIC DEVICE

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Enclosed is an original plus two copies of an Appeal

Brief in the above-identified patent application.

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No. 14-1270.

Respectfully submitted,

By
Edward W. Goodman, Reg. 28,613
Attorney
(914) 333-9611

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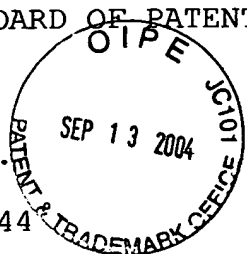
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BRIEF FOR APPELLANTS

This is an appeal from the Examiner of Group 2635 finally

rejecting claims 1-5, 7 and 8 in this application.

(1) Real Party in Interest

The real party in interest in this application is KONINKLIJKE

PHILIPS ELECTRONICS N.V. by virtue of an Assignment from the

inventors recorded on March 11, 2002, at Reel 012700, Frame 0110.

(2) Related Appeals and Interferences

There are no other appeals and/or interferences related to

this application.

(3) <u>Status of the Claims</u>

Claims 1-5, 7 and 8 stand finally rejected by the Examiner.

(4) <u>Status of Amendments</u>

There was one (1) Response filed on June 14, 2004, after final rejection of the claims on May 6, 2004, which was considered by the Examiner.

(5) <u>Summary Of The Invention</u>

The subject invention, as described in the Substitute Specification on page 6, line 5 to page 9, line 6, concerns a remote control device (1) which is capable of controlling at least one further electronic device (2-5). To that end, the remote control device (1) includes a memory (13) for storing a set of code data corresponding to the functions to be controlled of the at least one further electronic device (2-5). This memory (13) is connected to a control signal generator (12, 14, 15) for generating control signals corresponding to the code data for transmittal to the at least one further electronic device (2-5), which includes a control signal input for receiving the control signals (page 8, line 12 to page 9, line 6 (paragraph [0023])).

However, at times it may be necessary for the user to restore the code data stored in the memory (13) due to, for example, a battery failure in the remote control device. It is therefore

advantageous if the user is able to store a backup version of the code data in some convenient location, e.g., the at least one electronic device. To that end, the remote control device (1) further includes a code data output unit (21) for transmitting the code data (or a subset of the code data) to the at least one electronic device (2-5).

Correspondingly, the at least one electronic device (2-5) includes a control signal input (23) for receiving control signals from the remote control device (1) for controlling the at least one electronic device. The at least one electronic device (2-5) further includes a data signal input (20) for receiving code data from the remote control device, the received code data being stored in a memory (18).

(6)   Issues

(A)   Whether the invention as claimed in claims 1-4 and 7 is unpatentable, under 35 U.S.C. 103(a), over U.S. Patent 6,160,491 to Kitao et al. in view of U.S. Patent 6,309,275 to Fong et al.

(B)   Whether the invention as claimed in claim 5 is unpatentable, under 35 U.S.C. 103(a), over Kitao et al. in view of Fong et al., and further in view of US. Patent 6,130,625 to Harvey.

(C) Whether the invention as claimed in claim 8 is unpatentable, under 35 U.S.C. 103(a), over Kitao et al. in view of Fong et al., and further in view of U.S. Patent 6,133,847 to Yang.

(7) <u>Grouping Of Claims</u>

Appellant asserts that claims 1-4 and 7 stand and fall together; claim 5 stands and falls alone; and claim 8 stands and falls alone.

(8) <u>Arguments</u>

(A) The Kitao et al. patent discloses a remote controller, remote control interface, and remote control system including a remote controller and a remote control interface, in which the remote controller includes a memory containing control code tables corresponding to the devices to be controlled. The remote controller sends a trigger signal to the remote control interface which, in response, sends a device code back to the remote controller identifying the device to which the remote control interface is connected, thereby identifying which of the control code tables contained in the memory is to be used by the remote controller for controlling the selected device. In a further embodiment, upon receipt of the trigger signal, the remote control interface sends a complete code table for the connected device back to the remote controller.

The Fong et al. patent discloses interactive talking dolls which, in response to an activation signal, one doll performs a function and then causes the other doll to perform a complementary function. Fong et al. further discloses "Switch connections 32 may be coupled to a switch 30 located on or near the toy (such as in body 18 of doll 12, 14) or a key 114 of a keyboard coupled to circuit 100. Infrared detector/receiver 34 receives a signal either from an infrared emitting diode, similar to IR emitting driver 42 of circuit 100, of a circuit (substantially identical to circuit 100) in an associated toy or from a remote control device (such as a household television remote controller) which can generate infrared signals. Use of a remote control device for activating the toy of the present invention will be described in greater detail below." (col. 7, line 63 to col. 8, line 6). Fong et al. then describes how the dolls are programmed using the remote control (col. 14, lines 3-43).

Appellants submit while both Kitao et al. and Fong et al. disclose generating and transmitting control signals from a remote control device to a controlled device for controlling operating functions of the controlled device, neither Kitao et al. nor Fong et al. show or suggest transmitting all (or a subset) of the code data, used to form the control signals, from the remote control device to a first electronic device for storage in a memory of the first electronic device.

The Examiner states "…, the reference of Fong et al. is relied upon for teaching transmitting the control data from the remote control to an electronic device and further storing the data in the memory of the electronic device (col. 14 lines 24-32)".

Appellants submit that the Examiner is mis-interpreting Fong et al. In particular, the passage cited by the Examiner states:

> "Each time a user presses a button of the remote control unit, the MCU of the doll being programmed reads the signal in step 402. Before continuing, the MCU must determine, in decision step 404, whether the received signal is valid (recognizable by the MCU). If not, the MCU learn subroutine returns to step 404 to read another signal. If the signal, however, is valid, then the subroutine continues with step 406, in which the read signal is saved in a predefined address (associated with one of the possible actions) in the program for later use."

It should be clear from the above that this portion of Fong et al. does not disclose the transmission of control (i.e., code) data, but rather, the transmission of a (control) signal which is saved by the electronic device in a predefined address associated with one of the possible actions of the electronic device.

In order to further understand the above passage in Fong et al., Applicants refer the Examiner to col. 13, lines 32-38, which states:

> "When in learn mode, a learn subroutine is commenced so that MCU 24 may be programmed to interpret an infrared signal generated from a common household remote control unit, such as a commercially available television remote control unit, and respond thereafter to such a signal by performing a desired action as described above."

The key terms in the above passage are "common household remote control unit" and "commercially available television remote control unit". Applicants submit that a "common household remote control unit" and, in particular, a "commercially available television remote control unit" does not have the capability of reading its code data from memory and transmitting this code data to an electronic device. Rather, a "common household remote control unit" and, in particular, a "commercially available television remote control unit" includes a memory for storing code data, and a signal generator for selectively receiving the stored code data in response to the pressing of one of a plurality of control buttons on the remote control unit. The signal generator then generates a control signal based on the code data, this control signal being transmitted. It should be understood that the control signal includes a "command" portion, and has a particular signal format (including a preamble, the command, a postamble, a signal frequency, number of repetitions, etc.). The code data may only include the "command". Alternatively, the code data may include the "command" as well as instructions for the signal generator to generate the appropriate format.

What Fong et al. is attempting to do is to use a pre-existing "common household remote control unit", which transmits predefined control signals when various ones of its buttons are pressed, to control various operational functions of the electronic device. In

a "learn" mode, the electronic device of Fong et al. stores the transmitted control signals for selected ones of the buttons on the remote control unit, such that, in an operate mode, subsequent presses of the particular buttons causes the electronic device to perform the designated operational functions.

It should be noted that this type of remote control unit is described in, for example, claim 1, lines 1-11 (see above). However, what is missing from a "common household remote control unit" and, in particular, a "commercially available television remote control unit", is "said remote control device further comprises a code data output unit connected to said first memory, said code data output unit having a further input for receiving an upload signal, said code data output unit reading, under control of said upload signal, at least a subset of said set of code data from said memory, transmitting said subset of said set of code data burst-wise to the data input of said first electronic device". Arranged as such, the code data output unit enables the remote control transmitter to read the code data from the memory and to transmit the code data (without first being converted to formatted control signals by the signal generator) to the first electronic device, which, in turn, stores the received code data in a memory.

Applicants submit that this is neither shown nor suggested by Kitao et al. in view of Fong et al., and in particular, not by Fong et al.

(B)   The above descriptions of Kitao et al. and Fong et al., and arguments, are incorporated herein by reference.

The Harvey patent discloses a universal remote control with incoming signal identification, in which a universal remote control "learns" the signals of a "native" remote control by analyzing the signal being transmitted by the native remote control in order to identify the Protocol being used by the native remote control in forming its output signals.

The subject invention, as claimed in claim 5, is characterized in that "the signal generator generates said control signals in accordance with a predetermined transmission protocol, and said code data output unit includes an identifier, identifying said transmission protocol, into said subset."

Appellants submit that the Harvey patent neither shows nor suggests an identifier signal transmitted with the **code data** from a remote control device which identifies the transmission protocol of **control signals** when transmitted by the remote control device.

Further, Appellants submit that Harvey does not supply that which is missing from Kitao et al. and Fong et al., i.e., transmitting all (or a subset) of the code data, used to form the control signals, from the remote control device to a first electronic device for storage in a memory of the first electronic device. Moreover, Harvey neither shows nor suggests transmitting an

identifier signal with code data (which Harvey does not transmit) to a first electronic device for storage.

The Examiner states "Harvey the specific protocol used in a remote control signal is determined by an analysis of the remote control data bit information (col. 4, line 66-col. 5, line 3). The data bit from which the protocol is determined is considered the identifier signal."

Appellants submit that the Examiner is mis-interpreting Harvey, or taking that which is stated in Harvey out of context. In particular, the cited passage in Harvey states:

"An analysis of the pause and data bit information, enables the microprocessor to identify a specific Protocol that was sent by the native remote control from each family of Protocols stored in the ROM 70."

However, if one were to read the opening sentences of the paragraph, to wit:

"For the long carrier Protocol, in addition to the detection of the first pause, a first data bit is also detected. The data bit is the short carrier and short pause that occurs right after the long carrier followed by a long pause. The bit modulation scheme is being identified at this point."

it should be apparent that in the cited passage, Harvey is describing the identification of a single Protocol. As described at col. 3, lines 49-61, there are approximately 50 Protocols commonly in use in the Americas. In the ensuing portion of Harvey, i.e., col. 3, line 62 to col. 5, line 3, there is no description of a single bit information common to all of the Protocols which

identifies the respective Protocol. Rather, the microprocessor 10 of Harvey analyzes the transmission signal (or at least a first portion of the transmission signal) from the native remote control unit and compares the analyzed format with a "preprogrammed, internal data base of transmission techniques or Protocols, to know how the control information should be re-transmitted." (col. 4, lines 42-45). It should be understood that Harvey is trying to interpret the transmission signals from "standard" native remote control units, i.e., these units having not been modified to send any special identifier signal in addition to their normal control signals.

Further, Appellants submit that Harvey neither discloses nor suggests including a special identifier signal with an output transmission from a remote control unit. In addition, Appellants submit that Harvey neither discloses nor suggests a remote control unit which sends its stored control data, without having been formatted into control signals, along with a special identifier signal which identifies the transmission protocol used by that specific remote control unit for sending control signals.

(C)   The above descriptions of Kitao et al. and Fong et al., and arguments, are incorporated herein by reference.

The Yang patent discloses a configurable remote control device which is capable of downloading program control data. However,

Appellants submit that Yang does not supply that which is missing from Kitao et al. and Fong et al., i.e., transmitting all (or a subset) of the code data, used to form the control signals, from the remote control device to a first electronic device for storage in a memory of the first electronic device.

(9) Conclusion

Based on the above arguments, Appellants believe that the
subject invention, as claimed, is not rendered obvious by the prior
art and is patentable thereover. Therefore, Appellants respectfully
request that this Board reverse the decisions of the Examiner and
allow this application to pass on to issue.

Respectfully submitted,

by
Edward W. Goodman, Reg. 28,613
Attorney

(10) <u>Appendix</u>

<u>CLAIMS ON APPEAL</u>

1. (Previously Presented)   A arrangement including a remote

control device and at least one further electronic device, said

remote control device comprising a first memory for storing a set

of code data for use in controlling said at least one further

5   electronic device, said remote control device further comprising a

signal generator having an input for receiving code data from said

first memory, said signal generator generating, on the basis of

said code data, control signals for controlling said at least one

further electronic device, and transmitting said control signals to

10   a control signal input of said at least one further electronic

device, characterized in that said at least one further electronic

device includes a first electronic device having a data input for

receiving data from said remote control device, and said remote

control device further comprises a code data output unit connected

15   to said first memory, said code data output unit having a further

input for receiving an upload signal, said code data output unit

reading, under control of said upload signal, at least a subset of

said set of code data from said memory, transmitting said subset of

said set of code data burst-wise to the data input of said first

20   electronic device, said first electronic device including a second

memory for storing said received subset of said set of code data.

2. (Previously Presented) The arrangement as claimed in claim 1, characterized in that said signal generator is connected to said code data output unit, said code data output unit generating a control signal after reading said subset of said set of code data, and transmitting said control signal and said subset of said set of code data to said signal generator, said signal generator generating a code data signal, including said subset of said set of code data, upon receipt of said control signal, and transmitting said code data signal to said data input of the first electronic device, said first electronic device including a signal decoder for retrieving said subset of said set of code data from the received code data signal.

3. (Previously Presented) The arrangement as claimed in claim 1, characterized in that said first electronic device further comprises a verification unit connected to said second memory and said data input, said verification unit comparing a received subset with subsets stored in said second memory, and generating a first flag if said received subset is not stored in said second memory.

4. (Previously Presented) The arrangement as claimed in claim 3, characterized in that said verification unit generates a second

flag if said received subset is already stored in said second

memory, said verification unit further inhibiting, under control of

5   said second flag, storage of said received subset in said second

memory.

5.   (Previously Presented)   The arrangement as claimed in claim

1, characterized in that said signal generator generates said

control signals in accordance with a predetermined transmission

protocol, and said code data output unit includes an identifier,

5   identifying said transmission protocol, into said subset.

6.   (Cancelled).

7.   (Previously Presented)   A remote control device comprising:

a first memory for storing a set of code data for use in

controlling at least one further electronic device;

a signal generator having an input coupled to said first

5   memory for receiving said code data, said signal generator

generating, on the basis of said code data, control signals for

controlling said at least one further electronic device, and

transmitting said control signals to said at least one further

electronic device; and

10   a code data output unit connected to said first memory, said

code data output unit having a further input for receiving an

upload signal, said code data output unit reading, under control of

said upload signal, at least a subset of said set of code data from

said memory, and transmitting said subset of said set of code data

15   burst-wise to a data input of a first electronic device of said at

least one further electronic device.

8.   (Previously Presented)   The remote control device as claimed

in claim 7, characterized in that said remote control device is a

user-configurable remote control device.